

SARL NEWS - SUNDAY 13 NOVEMBER 2011

You are listening to ZS6SRL, the official radio station of the South African Radio League, the national body for amateur radio in South Africa, with a news bulletin every Sunday at 08:15 CAT in Afrikaans and at 08:30 CAT in English. To listen to a web stream, visit www.sarl.org.za, click on 'Amateur Radio Today' and follow the links for details. PLEASE NOTE: for audio via Echolink, connect to ZS0JPL-R.

You can download this bulletin and previous ones from www.sarl.org.za and also subscribe to receive future bulletins by e-mail.

Your newsreader this morning is (name), (call sign), on 145,725 and 7,066 MHz from Pretoria, with relays on 7,066 and 3,695 MHz SSB.

SILENT KEY

It is with regret that we have to announce that the key of Gerald Smith, ZS6IG, a dear friend of the Sasolburg ARC and the Vaal Triangle ARC and a mentor of many other radio amateurs became silent on Wednesday 9 November 2011.

Our sincere condolences to his wife Kathy and to all his friends and family.

(PAUSE)

In the news today:

MARITIME MOBILE NET IN CREW RESCUE

RADIO AMATEUR EXAMINATION RESULTS IMMINENT

CEPT TO PROPOSE NEW 500 kHz ALLOCATION AT WRC-12

SCIENTISTS PLAY PING PONG WITH SINGLE ELECTRONS

You are listening to ZS6SRL. Stay tuned for more details on these and other important and interesting items.

MARITIME MOBILE NET IN CREW RESCUE

The South African Maritime net assisted in the rescue of the crew of the sailing vessel "Wizard" which belonged to Gerry Boshoff, ZS6SUN . The yacht struck a submersed container. Gerry had maintained regular contact with the SA Maritime Net which enabled Graham Griggs, ZS2ABK, to supply the maritime authorities with much needed information. The crew was saved and taken aboard a tanker which had been diverted to the spot where the sailing vessel sank.

Mark Steed, the MRCC Duty Controller passed on a note of thanks from the father of one of the crew. He told Graham "from the MRCC side we thank you for your invaluable assistance in making this rescue a success. It is a sterling service you provide and our relationship is much valued and appreciated by MRCC",

Tune to Amateur Radio TODAY at 10:00 this morning for a full report from Graham, ZS2ABK. You can find detail of the frequencies and various transmission times on www.sarl.org.za, select Amateur Radio TODAY from the left hand menu.

RADIO AMATEUR EXAMINATION RESULTS IMMINENT

The RAE results will be issued early this week with the call sign allocation by the end of the week. Listeners may remember that in July this year ICASA changed the procedure of the administration of the results of the RAE. At the time the following bulletin was released: "The SARL and ICASA have revisited the Radio Examination Moderation Process. After each examination an SARL appointed moderator verifies the examination results and checks that all the marks are correctly computed and verifies that all questions are correctly marked. In a multiple choice examination the answer is either right or wrong. The examiner has no discretion. There are however at times marginal cases where the candidate scores a very high mark in one section but just misses to score the required minimum of 50% in the other section. It is in cases like these that the moderator reviews the answer papers and makes a recommendation to ICASA".

In this new process ICASA verifies the results before they are published. Unfortunately this process takes a little longer but is ultimately the fairest way of handling the results of the examination. However, when candidates receive their call signs on Friday they may go on the air without having to wait for the official letter, certificate or license.

CEPT TO PROPOSE NEW 500 kHz ALLOCATION AT WRC-12

The European Conference of Postal and Telecommunications Administrations better known to radio amateurs as the C-E-P-T says that it plans to back a proposal at the 2012 World Radio Communication Conference to create a new amateur radio allocation near 500 kHz.

During the November 1st to 4th meeting of the CEPT's WRC-2 Conference Preparatory Group held in Bucharest, Romania a European Common Proposal was agreed on for a 5 watt Effective Radiated Power allocation to the amateur service between 472 to 480 kHz. This new band would be on a secondary basis to all other spectrum users.

This European Conference of Postal and Telecommunications Administrations, ECP, will now be forwarding the proposal to the International Telecommunications Union in the hope of having it included in the WRC-12 agenda. It should be noted that this international body represents the block vote of 48 administrations and the motion to create the 500 kHz amateur radio band.

SCIENTISTS PLAY PING PONG WITH SINGLE ELECTRONS

Scientists at the Cambridge University (UK) have shown an amazing degree of control over the most fundamental aspects of an electronic circuit, how electrons

move from one place to another. Researchers at the University's Cavendish Laboratory have moved an individual electron along a wire, batting it back and forth over sixty times, rather like the ball in a game of ping pong. The research finding may have applications in quantum computing transferring a quantum 'bit' between processor and memory, for example.

Imagine you are at a party and you want to get to the other side of a crowded room to talk to someone. As you walk you have to weave around people who are walking, dancing or just standing in the way. You may also have to stop and greet friends along the way and by the time you reach the person you wanted to talk to you have forgotten what you were going to say. Wouldn't it be nice to be lifted up above the crowd, and pushed directly to your destination?

In a similar way, electrons carrying a current along a wire do not go directly from one end to the other but instead follow a complicated zigzag path. This is a problem if the electron is carrying information, as it tends to 'forget' it, or, more scientifically, the quantum state loses coherence.

In this work, a single electron can be trapped in a small well (called a quantum dot), just inside the surface of a piece of Gallium Arsenide (GaAs). A channel leads to another, empty, dot 4 microns (millionths of a metre) away. The channel is higher in energy than the surrounding electrons. A very short burst of sound (just a few billionths of a second long) is then sent along the surface, past the dot. The accompanying wave of electrical potential picks up the electron, which then surfs along the channel to the other dot, where it is captured. A burst of sound sent from the other direction returns the electron to the starting dot where the process can be repeated. The electron goes back and forth like a ping-pong ball. Rallies of up to 60 shots have been achieved before anything goes wrong.

This is an enabling technology for quantum computers. There is a lot of work going on worldwide to make this new type of computer, which may solve certain complex problems much faster than classical computers. However, little effort has yet been put into connecting up different components, such as processor and memory. Although the experiments do not yet show that electrons 'remember' their quantum state, this is likely to be the case. This would make the method a candidate for moving quantum bits of information (qubits) around a quantum circuit, in a quantum computer.

CLUB NEWS

OVERBERG AMATEUR RADIO CLUB

On 19 November 2011, the Overberg Amateur Radio Club will be having their end of the year function in conjunction with the HF Field Weekend at the QTH of John, ZS1DI, and Judy, ZS1JEG, at Stanford. They will also be hosting the Cape Town Branch of the AWA and they will be displaying and operating some of their radios.

For those of you with surplus equipment, take it along and they can have a boot-sale.

A short meeting will be held at 11:00. The usual bring-and-braai will be held after the meeting and should continue into the evening for those staying over. Please take some wood if possible, and your braai implements. Braai drums will be available.

Visitors are more than welcome. Go and join the fun over the weekend. Contact Andre, ZS1AZ, at 028 514 2018 or 072 729 1680. You can also contact Sam, ZS1OR, at 028 316 1470 or 073 250 0428 for more information and directions.

PROPAGATION REPORT

Hannes Coetzee, ZS6BZP, reports that sunspot 1 339 is in a state of slow decay but can still produce some M-class flares. The sun's surface is peppered with smaller sunspots promising exciting HF conditions.

For those who do their own frequency predictions the expected effective sunspot number for the week will be around 127, another new high for this solar cycle.

All the bands from 20 to 10 m will provide lots of DX fun with the higher bands typically opening first and the lower bands opening later during the day. 6 m is also waking up with some very nice TEP openings.

Please visit www.spaceweather.co.za for further information.

DIARY OF EVENTS

13 November AWA open day at the Rand Airport starting at 10:00. 13 November - Pears HF Competition 12:00 till 16:00 UTC. 19/20 November - SARL Field day competition. 19 November - Overberg Amateur Radio Club get together at Stanford. 20 November - CW leg of 80 m Club competition. 27 November - Digital competition. 30 November - last day to submit logs for Pears HF DX-expedition. 31 January 2012 - Last day for submission of nominations for Council members and also for submission of motions for the 2012 SARL AGM. 31 January 2012 - Closing date for submitting papers for SA AMSAT Space Symposium.

SARL News invites clubs and individuals to submit news items of interest to radio amateurs and shortwave listeners. Submit news items - if possible - in both English and Afrikaans to www.sarl.org.za/newsinbox.asp, not later than the Thursday preceding the bulletin date.

The SARL also invites you to listen to Amateur Radio Today every Sunday morning at 10:00 CAT on 145,750 MHz in the Pretoria area, with relays on 7 082, 7 205 and 17 760 kHz. There is also a podcast by ZS6RO. For a web-stream and Echolink by ZS6FCS, visit www.sarl.org.za, click on 'Amateur Radio TODAY', go down the green column and click on 'LISTEN ON THE WEB'. A repeat transmission can be heard on Mondays at 16:30 UTC on 4 895 kHz. Sentech sponsors the ARMI transmissions on the non-amateur frequencies.

You have listened to a bulletin of the South African Radio League, compiled by George, Z6SNE.

Thank you for listening, 73. /EX

===== Message Ends =====

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